**Post Test Coordinate Algebra Unit 2 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Determine if the following point is a solution to the given system. (3 points)**

1. *y* = –3*x* + 7 ( 6, –2 )



**Find the solution for the following systems. If there is no solution, write “no solution,” or if there are infinitely many solutions, write “infinitely many solutions.” SHOW ALL YOUR WORK! (5 points each)**

1. 

6x – 2y = 14

1. 



**Answer the next two questions using complete sentences.**

1. When a system of linear equations was graphed, it was determined that there were no solutions to the system.

A) Describe the graph. **(2 points)**

B) Explain why there are no solutions.

**(2 points)**

1. When a system of linear equations was solved by linear combination, the result was 15 = 15.

A) How many solutions are there?

**(2 points)**

B) What does the graph look like?

**(2 points)**

**Graph the system and find the solution.**

**(6 points)**

1.  and 

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Solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Multiple Choice**. **CIRCLE THE LETTER of the correct answer.** **(4 points each)**

1. If two equations in a linear system are graphed and they coincide (the graphs are the same), then the system has how many solutions?

A. one B. two

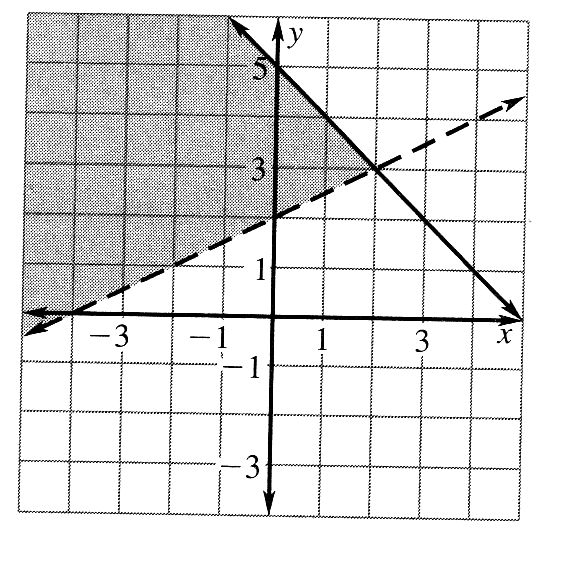
C. infinitely many D. none

1. Which ordered pair is the solution to the system



A. (2, 9) B. (-4, 12) C. (5, 6) D. (4, 4)

**Which system of inequalities is represented by the graph? (5 points)**

1. 

A.  B. 

C.  D. 

1. **Using the graph above**, **list three ordered pairs** that are solutions to the system.

**(3 points)**

**Use a linear combination to solve the following system. (6 points)**

1. 4*x* = – 2*y* + 25

–3*x* + 4*y* = – 5

**Use** **substitution to solve the following system. (6 points)**

1. 



**Multiple Choice**. **CIRCLE THE LETTER of the correct answer.** **(4 points each)**

1. To solve the following system by linear combination, you need to multiply the first equation by what number?

3*x* – 2*y* = 16 and 2*x* – 6*y* = 20

A. –3 B. 3 C. 5 D. 0

1. How many solutions are in the following system?

 and 3*x* + 3*y* = 18

A. one B. two

C. infinitely many D. none

1. ( –4, 5 ) is the solution set for which of the following systems of equations?

A. x + y = 1 B. 2x + 2y = 2

2x + y = 3 2x + y = –3

C. 2x + 2y = 0 D. x + 2y = –14

4x + 2y = 6 2x + y = 3

1. There were 150 tickets sold tickets sold for a school play. Tickets for students were $2, and tickets for adults were $3. The total amount of money collected was $355. How many student tickets were sold?

A. 40 B. 145 C. 55 D. 95

1. A jar of nickels and dimes contain $6.75. There are 84 more nickels than dimes. How many of each is there?

A. 22 dimes, 106 nickels

B. 17 dimes, 101 nickels

C. 52 dimes, 32 nickels

D. 32 dimes, 116 nickels

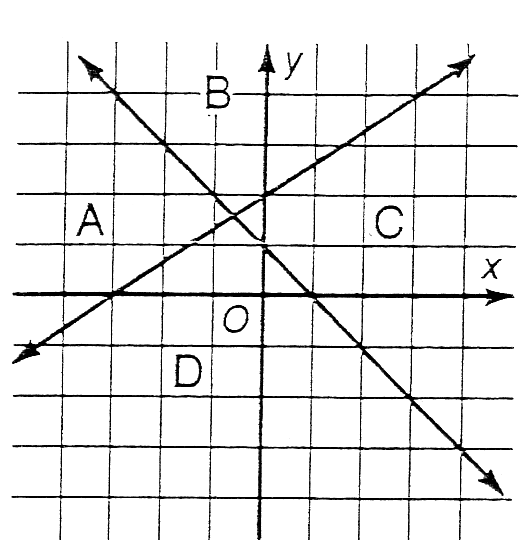
1. The difference of two numbers is 4. Half the larger number is seven less than the smaller number. Find the two numbers.

A. 14, 18 B. 22, 26

C. 18, 22 D. 6, 10

1. State which region on the graph is the solution to the system:

 and 



A. Region A B. Region B C. Region C D. Region D

**Graph the system of inequalities. (8 points each)**

1.  and 

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1.  and 

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